# User Manual

# AMiS-60

ADVANTECH

*Enabling an Intelligent Planet*

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# Instructions for the User

The document combines text and illustrations, providing a comprehensive overview of the system. The information is presented as a sequential step of actions, allowing the user to learn directly how to use the device.

The text provides explanations and instructs the user step-by-step in the practical use of the product, with short, clear instructions in an easy-to-follow sequence.

# Warnings, Cautions and Notes

***Warning!*** *Warnings indicate conditions, which if not observed, can cause personal injury!*

***Caution!*** *Cautions are included to help you avoid damaging hardware or losing data. e.g.*

***Note!*** *Notes provide optional additional information.*

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# Product Warranty

## WHAT'S COVERED & HOW LONG

Standard warranty covers two (2) - years structural components, two (2) - years for computer system and electronics, two (2) - year for battery system.

- Warranty coverage begins on product's date of delivery. Standard warranty does not cover problems resulting from product abuse, negligence/accident, misuse, improper operation, post-delivery physical damage, and/or product modifications without Advantech's prior written approval.
- External peripherals (including: computing equipment/devices, monitors, keyboards, mouse, are not included in this warranty.

Advantech shall not be liable for any consequential or incidental damages.

## HOW WE HELP YOU

Support services provided along with the standard warranty must be requested within the expressed warranty time frame for the product element.

- Technical support may request customer collaboration and assistance during diagnosis to provide for the next business day service resolution. Typically, this requires, but is not limited to:
- Identifying a primary contact representative (with phone number and e-mail address) to work with Advantech and answer relevant questions.
- Providing the serial ID number and access to the product.
- Performing basic troubleshooting activities as directed by Advantech Technical Support.

Resolution methods can include, but are not limited to, any of the following:

- Verbal/written instructions to correct the problem.
- Shipping of replacement parts.
- On-site dispatch of an Advantech authorized service technician.

If needed, Advantech will involve its design engineers or supplier partners for resolution assistance and customer satisfaction. Determination for resolving warranty issues will be at Advantech's sole discretion.

# Safety Instructions

1. Strictly follow these instructions for use; please read these safety instructions carefully.
2. Keep this user manual for later reference; any use of the product requires full understanding and strict observation of all portions of these instructions. Observe all.
3. Repair of the device may also only be carried out by trained service personnel.
4. Advantech recommends that a service contract be obtained with Advantech Service and that all repairs also be carried out by them. Otherwise the correct functioning of the device may be compromised.

***Warning!*** *Because of the danger of electric shock, never remove the box of a device while it is in operation or connected to a power outlet.*

5. If one of the following situations arises, get the equipment checked by service personnel:
   - The power cord or plug is damaged.
   - Liquid has penetrated into the equipment.
   - The equipment has been exposed to moisture.
   - The equipment does not work well, or you cannot get it to work according to the user's manual.
   - The equipment has been dropped and damaged.
   - The equipment has obvious signs of breakage.
6. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning and keep this equipment away from humidity.

***Caution!*** *To avoid short-circuits and otherwise damaging the device, do not allow fluids to come in contact with the device. If fluids are accidentally spilled on the equipment, remove the affected unit from service as soon as possible and contact service personnel to verify that patient safety is not compromised.*

7. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.

***Caution!*** *Do not leave this equipment in an uncontrolled environment where the storage temperature is below 0° C or above 50° C. This may damage the equipment.*

8. If your computer clock is unable to keep accurate time or the BIOS configuration resets to default, please check the battery.

***Caution!*** *Do not replace the battery yourself. Please contact a qualified technician or your retailer.*

*The computer is provided with a battery-powered, real-time clock circuit.*

*There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer.*

*Discard used batteries according to the manufacturer's instructions.*

***Caution!*** *When servicing the device, always use replacement parts that meet Advantech standards. Advantech cannot warrant or endorse the safe performance of third-party replacement parts for use with our medical devices.*

# Safety Information

For your own safety and that of your equipment, always take the following precautions.

Disconnect the power plug (by pulling the plug, not the cord), from your computer if any of the following conditions exists:

- The power cord or plug becomes frayed or otherwise damaged
- Your cart has been damaged
- You suspect that your computer needs service or repair
- You want to clean the cart or screen
- You want to remove/install any parts

### GROUNDING

Connect the AMiS Cart to an equivalent receptacle marked "Grounding material" to ensure ground.

### SERVICE AND REPLACEMENT

Do not attempt to service or replace any part of the AMiS Cart unless directed to do through Advantech approved documentation (i.e., this User Manual or other instructions). Only Advantech or an Advantech certified entity may service or replace the cart components. If any component on the cart is missing or damaged, the cart must not be used. Contact Advantech immediately to request service.

### DO NOT OPEN THE POWER SYSTEM

Unauthorized personnel opening the power system may cause injury and/or death. If the unit is not working properly, please contact Advantech.

We do not allow customers to swap battery pack or cells, if we find the power system has been opened/disassembled by the customer, Advantech will not guarantee the power system warranty from then on.

### DO NOT USE THE UNIT IN OR NEAR WATER OR OTHER LIQUIDS

If the unit becomes wet, unplug it immediately, wipe away any excess liquid and allow it to dry before use.

Failure to do so can result in injury and/or death.

# Additional Information and Assistance

1. Visit the Advantech website at http://support.advantech.com where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
   - Product name and serial number
   - Description of your peripheral attachments
   - Description of your software (operating system, version, application software, etc.)
   - A complete description of the problem
   - The exact wording of any error messages
   - This equipment is a source of electromagnetic waves. Before use please make sure that there are not EMI sensitive devices in its surrounding which may otherwise malfunction

**Environmental Protection**

- Follow national requirements to dispose of unit.

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# Chapter 1

## General Information

## 1.1 Introduction

AMIS (Advantech Medical and Intelligent Station) means “good friend” in French, as it acts like a powerful assistant to accompany doctors and clinicians.

AMIS-60 is an all in one computerized medical cart. Nursing carts help nurses record patient information during visits, reduce transcription errors, and improve the speed of recording, transmitting and searching. They eliminate handwritten paperwork and storage, help deliver better professional healthcare, and create a safer digital medical environment.

AMIS-60 is a highly integrated computerized nursing cart to optimize the patient care process and enable mobile point-of-care.

## 1.2 Specifications

| Category | Item | Description |
|---|---|---|
| System | CPU | Intel Atom D510 1.66 GHz, 1M L2 cache<br>Intel Atom N450 1.66 GHz, 512 K L2 cache |
| | Chipset | Intel ICH8M |
| | RAM | 2 GB DDR2 SODIMM |
| | Bus expansion | 2 built-in x Mini-PCIe slots<br>- 1 x for built-in WLAN (b/g) module (USB 2.0 I/F only) |
| | Storage | SSD and Compact Flash (optional) |
| | O.S. | XP, XP Embedded, Vista, Windows 7 |
| Display (Optional) | Display type | 17” and 19” |
| | Resolution | 1280 x 1024 |
| | Touchscreen | Analog resistive Type (Option) |
| Base Cart | Footprint | 20.5” x 24.7” (520.7 mm x 627.3 mm) |
| | Casters | Medical casters, two front locking, two non-locking |
| | Height adjustment range | 31.4” ~ 45.1” (797.5 mm x 1145.5 mm) |
| | Cart weight | 106.5 lb /46.5 kg w/o display, computer and power module |
| | Neck | Din rail<br>I/O port: USB 2.0 x4, Gigabit Ethernet interface (RJ-45) x1 |
| | Dashboard | Battery power button<br>Computer power button<br>LED for battery capacity indication |
| | Work surface | Weight capacity: up to 66 lb/30 kg<br>20.5” x 19.2” (520 x490 mm)<br>Din Rail (Rear, left and right) |
| | Keyboard & mouse area | Keyboard size: up to 380 x 140 x 25 mm<br>Keyboard LED light<br>Mouse tray |

| | | |
|---|---|---|
| Power Module | Battery capacity | 400 Wh |
| | Power input | 90 ~ 264 V, 47 ~ 63 Hz AC input |
| | Battery type | LiFePO4 (Lithium-Iron Phosphate; LFP) |
| | Battery runtime | > 6 Hours (Depends on system configurations) |
| | Battery charge time | 3 ~ 6 hours |
| | Certifications | EN60601-1, UL60601-1, CE, FCC |
| | Management soft-ware (AMiS_Link) | Battery capacity indicator<br>Alerts (Battery capacity, temperature, warning)<br>Charging cycle statistics<br>Report & log file<br>Multi-language support, including Chinese Traditional, Chinese Simple, English, German and Dutch |

## 1.3 Dimensions

Dimensions: 571.2 x 639.3 x 1143 (Units: mm)

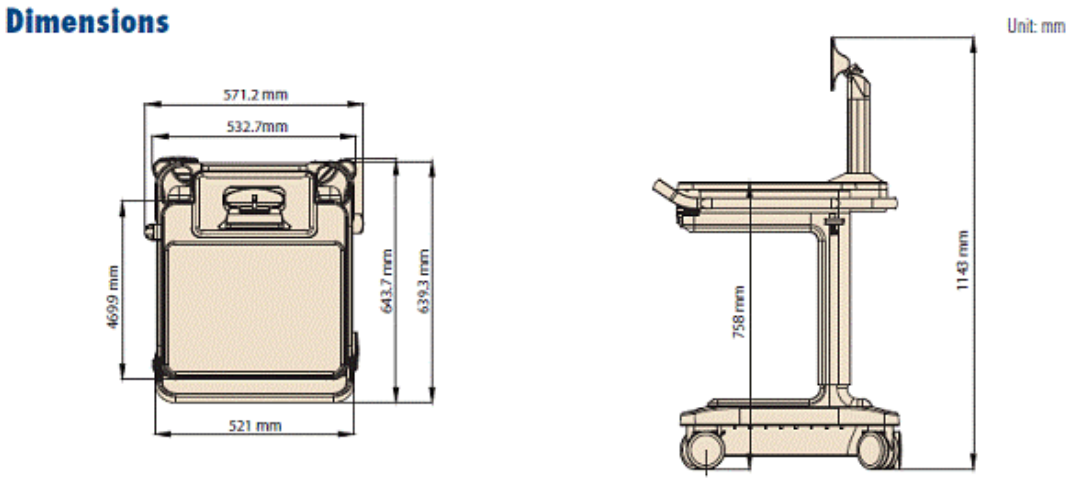



**Figure 1.1 Dimensions**

# Chapter 2

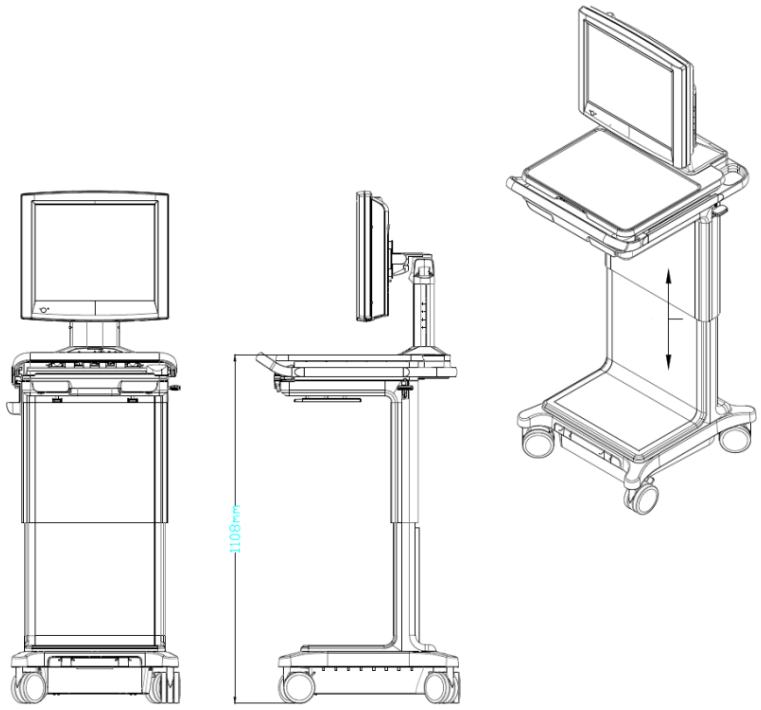
## Profiles

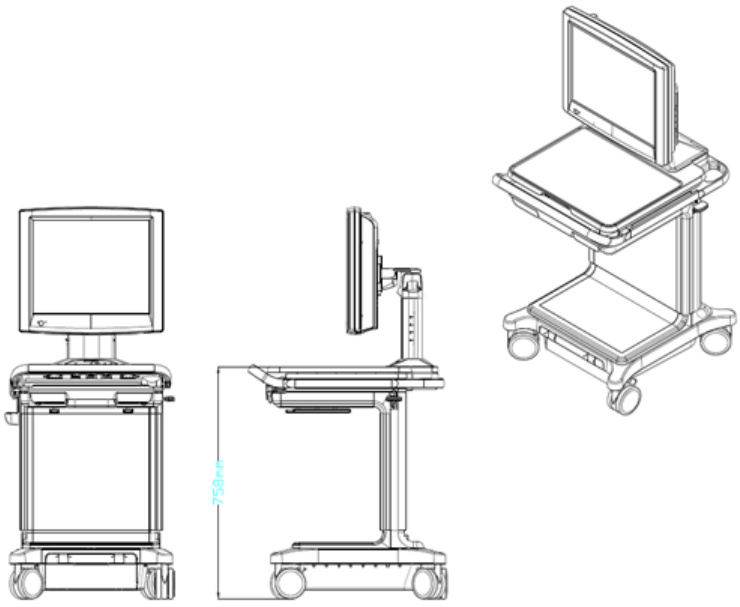
## 2.1 Overview

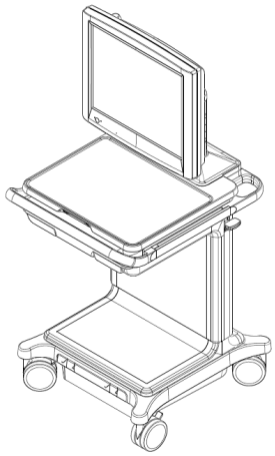
## 2.2 A Quick Tour of AMIS

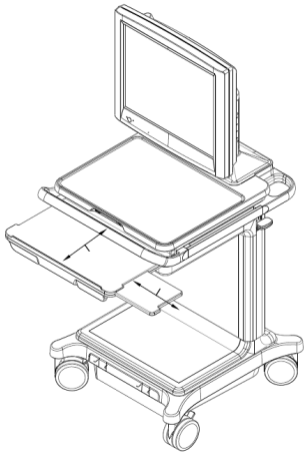
## 2.3 Features

**Adjustable Table**







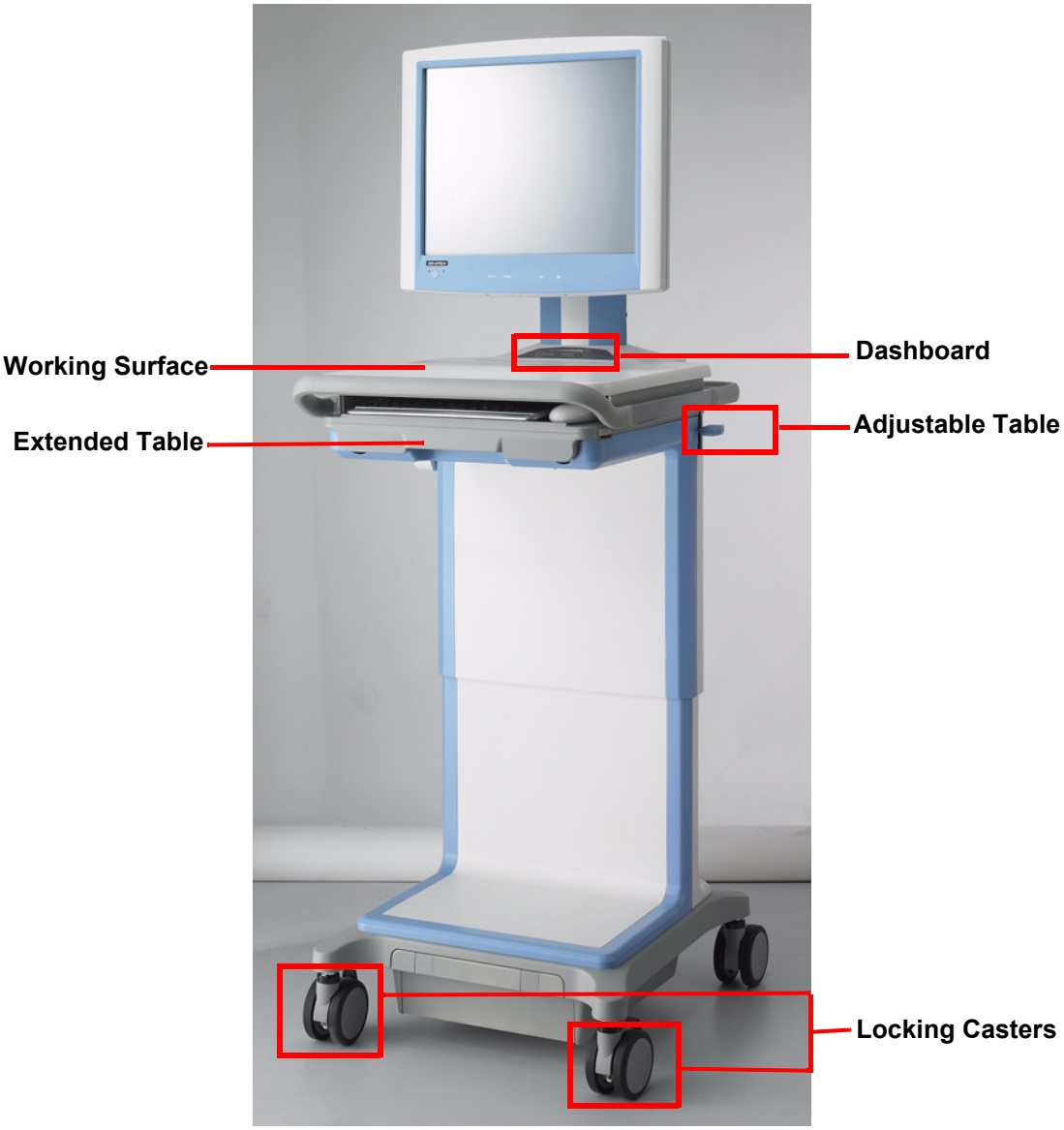
# Chapter 3

## System Setup

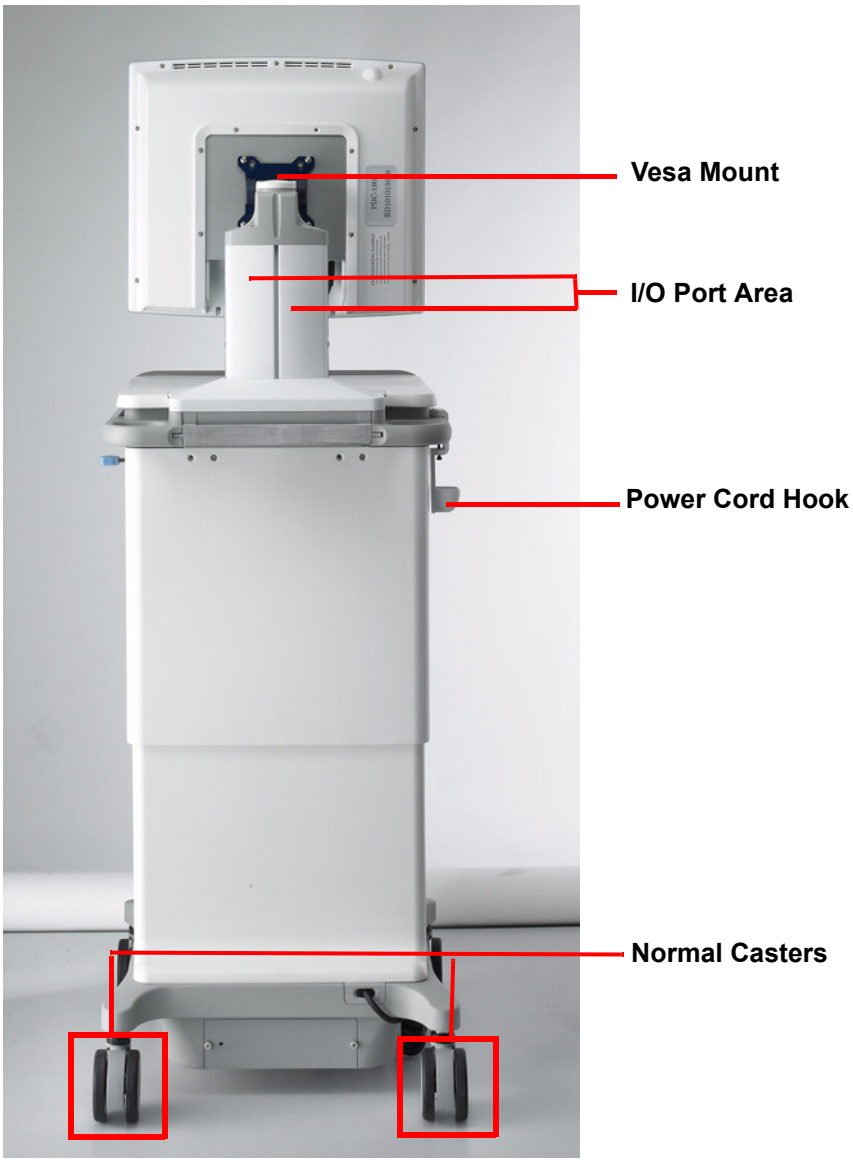
## 3.1 Quick Start

Before you start to set up the AMIS-60, take a moment to become familiar with the locations and purposes of the controls, drives, connections and ports, which are illustrated in the figures below.

**Front-View**

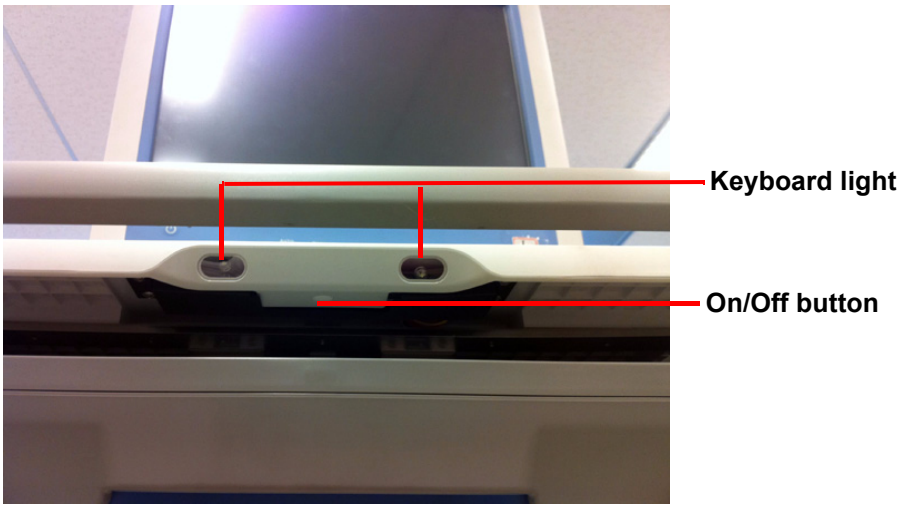


**Back-View**

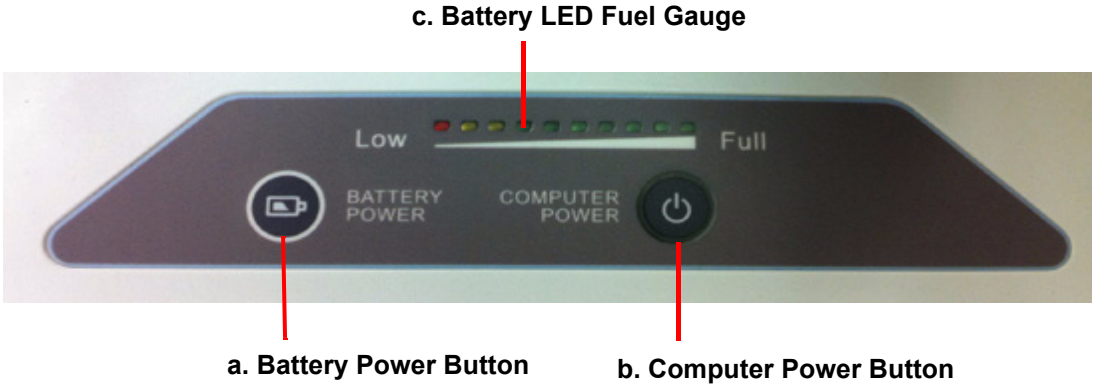


## 3.2 Introduction to Functions

1. Working surface
   Press the on/off button to turn the keyboard light on/off in one touch.




2. Dashboard




**Power on Battery:** Press and hold button (a) for 4-7 seconds ==>LED (c) will display battery status.

**Power off Battery:** Press and hold button (a) for 4-7 seconds ==>LED (c) indicators will shut off.

**Power on Computer:**

1. Make sure (a) has already been pressed and (c) is displayed.
2. Press button (b) ==> the system will boot up and a status light (b) will continuously be illuminated indicating that the system is running.

**Power off Computer:**

Press button (b) ==> the computer will shut down and the indicator light (b) will intermittently flash.

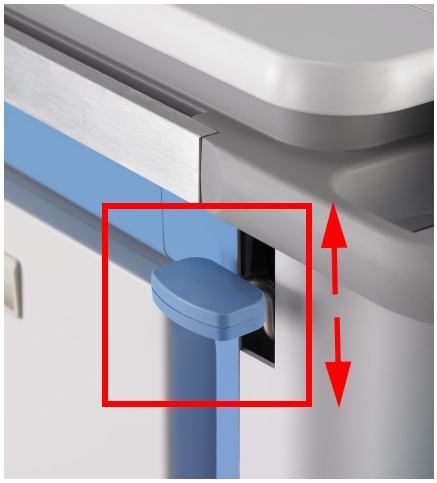
**Battery LED Fuel Gauge:**

There are a total of 10 LEDs, each one indicates 10% of the power capacity. When the LED Fuel Gauge <30%, the LED will start to flash a battery capacity low alarm.

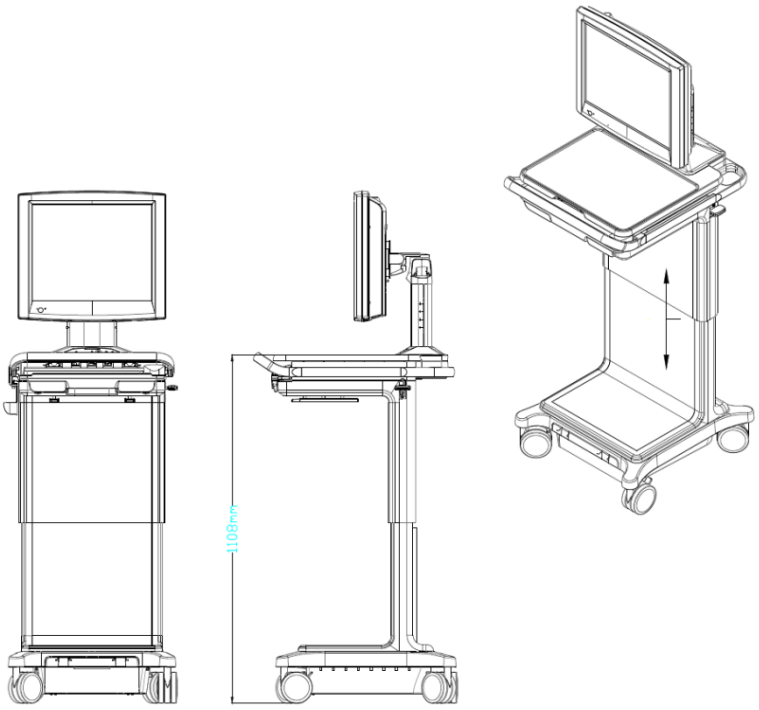
**Note!**

- *Make sure to power on battery by pressing and holding the battery power button for four seconds.*
- *After the battery system has been turned on, press the computer power button once to power on the computer system.*
- *Battery Runtime: 8 ~ 10 hours; Battery Charge Time: 3 ~ 6 hours*
- *What is the Battery LED Fuel Gauge?*
  *The LED Fuel Gauge has 10 LEDs, position 1 ~ 10 from left to right indicating low to high status from left to right.*
- *What is the status of the unit when it is plugged in? AC LED is blinking continuously?*
  *With the LEDs blink continuously and the unit is plugged in, it indicates that the battery is charging from AC input. When all the LEDs change from blinking to solid lights, it means the battery is fully charged.*

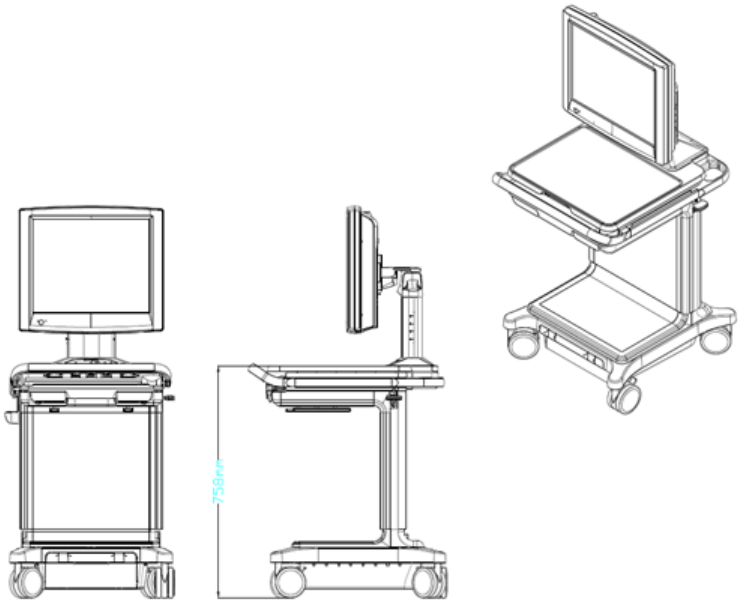
3. Adjustable Table
   Press/Lift the adjusting handle to easily adjust the height of the working table.



**Cart Extended Upwards**



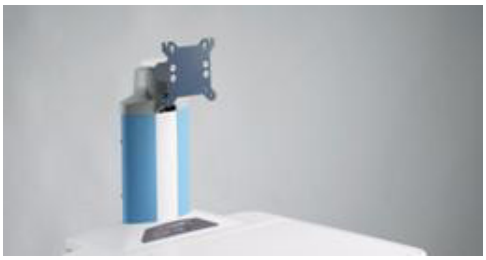

**Cart Retracted Downwards**



4. Extended Table
Trays beneath the tabletop are designed with space to house keyboard and mouse (For both left-handed and right-handed users).

5. Locking Casters
Locking casters quickly lock in place with a foot-activated lever.

6. Vesa Mount



**Monitor Adapter with Tilt/Swivel Function,**
VESA Mounting: 75 x 75 mm; 100 x 100 mm
**Rail Plate with Quick Release**
Maximum weight: 18 kg

***Note!***

- *30 kg is the total working surface stand weight including monitor.*
- *If the total weight over 30 kg, table adjustment may be impacted or not work at all.*

7. I/O port area
   Remove cover, 4 x USB 2.0 ports

1 x RJ-45 port, Gigabit Ethernet interface

# Chapter 4

## AMIS-60 Cleaning and Disinfecting

## 4.1 AMIS-60 Cleaning and Disinfecting

During normal use of the AMIS, the device may become dirty and should be regularly cleaned.

**Steps:**

1. Prepare cleaning fluid as listed below:
2. Wipe the AMIS with a clean cloth that has been moistened in the cleaning solution.
3. Wipe thoroughly with a clean cloth.

| No | Cleaning Agents |
|---|---|
| 1 | Isopropyl alcohol |
| 2 | Alcohol |
| 3 | Alcohol 70% |
| 4 | Chloride 1000 PPM |

***Caution!***

- *Do not immerse or rinse the AMIS or its peripherals. If you accidentally spill liquid on the device, disconnect the unit from the power source. Contact your support department regarding the continued safety of the unit before placing it back in operation. Do not spray cleaning agent on the chassis.*
- *Do not use disinfectants that contain phenol.*
- *Do not autoclave or clean the AMIS or its peripherals with strong aromatic, chlorinated, ketone, ether, or ether solvents, sharp tools or abrasives. Never immerse electrical connectors in water or other liquids.*

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